REMARKS/ARGUMENTS

I. Introduction:

Claims 1, 6, 7, and 16 are amended, claims 5, 10-15, and 17 are canceled, and new claims 18-23 are added herein. With entry of this amendment, claims 1-4, 6-9, 16, and 18-23 will be pending.

II. Claim Rejections Under 35 U.S.C. 112:

Claim 15, which was rejected under 35 U.S.C. 112, has been canceled.

Claim 7 has been amended to replace "the group" with "a group". As amended, claim 7, is believed to comply with 35 U.S.C. 112.

III. Claim Rejections Under 35 U.S.C. 102:

Claims 1-17 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,445,704 (Howes et al.).

Howes et al. disclose a method and apparatus for virtualizing a locally initiated outbound connection from a connection manager. Inbound connections directed to a virtual machine are handled by a physical machine having a physical machine IP address. A static physical machine object contains the virtual IP address and the physical machine IP address. When a packet having a packet source IP address that matches the physical machine IP address is received a connection object is created for handling outbound connections from the physical machine IP address. When a new connection is requested for a virtual machine port, one of the real machine ports that is bound to the virtual machine port is selected using a load balancing scheme or other distribution scheme that distributes connections among all of the real ports bound to the virtual machine port specified in the incoming packet. Different instances of the virtual machine have

different bind IDs and each bind ID may service a different client with a different IP address. For example, one virtual machine may be made available to preferred users. Users are thus treated differently based on the source IP address in a SYN packet that is sent to request a connection. The connection is assigned to a virtual machine with a bind ID corresponding to the initiator of the connection.

Applicant's invention as set forth in amended claim 1 is directed to a method for providing a persistent connection between a client and a real server. The method generally includes: receiving a request originating from a first client for connection to a virtual server implemented on a local director which is in communication with two or more real servers; identifying a natural class of an IP address of the first client; and determining if the local director has received and sent out connection requests from the first client or any client having the same natural class as the first client by searching a table stored on the local director and identifying previous connections created between the local director and the real servers. If the local director has received and sent out a connection request to one of the real servers from the first client or any client having the same natural class as the first client, the same real server is selected for connection with the first client. If the local director has not received and sent out a connection request to one of the real servers from the first client or any client having the same natural class as the first client, one of the real servers is selected based on load balancing.

Howes et al. do not disclose searching a table stored on a local director to identify if a previous connection has been created between the local director and a real server. Howes et al. create a connection based on a bind ID that corresponds to the initiator of the connection. Applicant's invention is particularly advantageous in that if a client having a natural class for which no connection has been made requests a connection, a server can be selected based strictly on load balancing. Also, since connections are identified in a table stored on the local director, sticky connections can be timed out after a specified period for one or more natural classes. In contrast, Howes et al. always use the bind ID of the requestor to select a server and do not look at the history of previous connections in selecting a server. This does not allow for updates to server connections

for specific classes of IP addresses overtime. Also, the method of Howes et al. results in limited load balancing since the same servers or groups of servers are always selected for a specific requestor.

Accordingly, claim 1 is submitted as patentable over Howes et al. Claims 2-4, depending directly from claim 1, are submitted as patentable for the same reasons as claim 1.

Claim 6 is directed to a computer program product for providing a persistent connection between a client and a server. The product includes code that receives a request for connection to a virtual server implemented on a local director; code that identifies a natural class of an IP address of said first client; and code that determines if the local director has received and sent out connection requests from said first client or any client having the same natural class as said first client by searching a table stored on the local director and identifying previous connections created between the local director and said two or more real servers. Claim 6 has been amended to include code that selects the same real server if the local director has received and sent out a connection request to one of said real servers from said first client or any client having the same natural class as said first client and code that selects one of said real servers based on load balancing if the local director has not received and sent out a connection request to one of said real servers from said first client or any client having the same natural class as said first client. Claim 6 is submitted as patentable over Howes et al. for the reasons previously discussed with respect to claim 1.

Claim 7-9, depending either directly or indirectly from claim 6, are submitted as patentable for the same reasons as claim 6.

IV. Conclusion:

For the foregoing reasons, Applicant believes that all of the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a

telephone conference would in any way expedite the prosecution of the application,

please do not hesitate to call the undersigned at (408) 446-8695.

Respectfully submitted,

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